JOURNAL OF
Economic Theory

EDITOR: Karl Shell

ASSOCIATE EDITORS:

Kerry Back
Yves Balasko
Jeffrey S. Banks
Jess Benhabib
William A. Brock
Vincent P. Crawford
Gerard Debreu
Eddie Dekel
Darrell Duffie
David Easley
Larry G. Epstein
Drew Fudenberg
John Geanakoplos
Itzhak Gilboa
Jean-Michel Grandmont
Faruk Gul
Chi-fu Huang
Matthew O. Jackson
Michihiro Kandori
David K. Levine
George J. Mailath
Kiminori Matsuyama
Steven A. Matthews
R. Preston McAfee
Masahiro Okuno-Fujiwara
James Peck
Andrew Postlewaite
Roy Radner
Stephen A. Ross
Ariel Rubinstein
Mark A. Satterthwaite
Avner Shaked
Bruce D. Smith
Joel Sobel
Stephen E. Spear
Rangarajan Sundaram
Asher Wolinsky
Randall Wright
William R. Zame

ADMINISTRATIVE EDITOR: Susan Witherow Schulze

Volume 62, 1994

ACADEMIC PRESS, INC.
Harcourt Brace & Company
San Diego New York Boston
London Sydney Tokyo Toronto

Copyright © 1994 by Academic Press, Inc.

All Rights Reserved

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. (222 Rosewood Drive, Danvers, Massachusetts 01923), for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Copy fees for pre-1994 articles are as shown on the article title pages; if no fee code appears on the title page, the copy fee is the same as for current articles.

0022-0531/94 $6.00

This journal is printed on acid-free paper.

Printed by Catherine Press, Ltd., Brugge, Belgium

Contents of Volume 62

Number 1, February 1994

Susan Elmes and Philip J. Reny. On the Strategic Equivalence of Extensive Form Games 1

R. Preston McAfee. Endogenous Availability, Cartels, and Merger in an Equilibrium Price Dispersion 24

Avinash Dixit and Rafael Rob. Switching Costs and Sectoral Adjustments in General Equilibrium with Uninsured Risk . . . 48

David G. Luenberger. Dual Pareto Efficiency 70

Suchan Chae and Jeong-Ae Yang. An *N*-Person Pure Bargaining Game 86

Drew Fudenberg and David K. Levine. Efficiency and Observability with Long-Run and Short-Run Players. 103

William S. Neilson. Second Price Auctions without Expected Utility 136

Hans Peters and Peter Wakker. WARP Does Not Imply SARP for More Than Two Commodities 152

John P. Conley. Convergence Theorems on the Core of a Public Goods Economy: Sufficient Conditions 161

Ryo-ichi Nagahisa. A Necessary and Sufficient Condition for Walrasian Social Choice 186

Notes, Comments, and Letters to the Editor

Piero Gottardi. On the Non-neutrality of Money with Incomplete Markets 209

Jonathan Glover. A Simpler Mechanism That Stops Agents from Cheating 221

Rudolf Kerschbamer. Destroying the "Pretending" Equilibria in the Demski–Sappington–Spiller Model 230

Daniel Berkowitz. Atavistic Dynamics in a Two-Sector Economy 238

Erratum

Volume 59, Number 1, 1993: Motty Perry and Philip J. Reny, "A Non-cooperative Bargaining Model with Strategically Timed Offers," pp. 50–77 253

Announcement 254

Papers to Appear in Forthcoming Issues 255

14 797HI XL 1327
11/94 31249-201

Number 2, April 1994

Hua He and Chi-fu Huang. Consumption-Portfolio Policies: An Inverse Optimal Problem 257
Jerome Detemple and Shashidhar Murthy. Intertemporal Asset Pricing with Heterogeneous Beliefs 294
Duncan K. Foley. A Statistical Equilibrium Theory of Markets 321
Brian A. Rivard. Monopolistic Competition, Increasing Returns, and Self-Fulfilling Prophecies 346
Leonard J. Mirman, Larry Samuelson, and Edward E. Schlee. Strategic Information Manipulation in Duopolies. 363
E. J. Balder and A. Rustichini. An Equilibrium Result for Games with Private Information and Infinitely Many Players 385
Ralph E. Gomory. A Ricardo Model with Economies of Scale 394
Diego Moreno and Mark Walker. Two Problems in Applying Ljung's "Projection Algorithms" to the Analysis of Decentralized Learning. 420
Jacob Glazer. The Strategic Effects of Long-Term Debt in Imperfect Competition 428
Val Eugene Lambson. Some Results on Optimal Penal Codes in Asymmetric Bertrand Supergames 444

Notes, Comments, and Letters to the Editor

Chew Soo Hong and Edi Karni. Choquet Expected Utility with a Finite State Space: Commutativity and Act-Independence 469
Charles Blackorby and R. Robert Russell. The Conjunction of Direct and Indirect Separability 480
Dimitrios Diamantaras and Simon Wilkie. A Generalization of Kaneko's Ratio Equilibrium for Economies with Private and Public Goods 499

Announcement 513

Papers to Appear in Forthcoming Issues 514

Author Index for Volume 62 516

Information for Authors

The *Journal of Economic Theory* publishes original articles on economic theory and related mathematical techniques. Manuscripts should be submitted in triplicate to: *Journal of Economic Theory*, Cornell University, 402 Uris Hall, Ithaca NY 14853-7601 USA.

Manuscripts are accepted for review with the understanding that the same work has not been and will not be nor is presently submitted elsewhere. While under editorial review, *it is the responsibility of the authors to keep the Editor informed about submissions, publication plans, and publication of related research (or abstracts thereof) in other outlets—including letters journals, journals in other disciplines, collections of articles, and published dissertations.*

It is understood that submission of the paper for publication has been approved by all of the authors and by the institution where the work was carried out; further, that any person cited as a source of personal communications has approved such citation. Written authorization may be required at the Editor's discretion. Articles and any other materials published in the *Journal of Economic Theory* represent the opinions of the author(s) and should not be construed to reflect the opinion of the Editorial Board or the Publisher.

Authors submitting a manuscript do so on the understanding that if it is accepted for publication, copyright in the article, including the right to reproduce the article in all forms and media, shall be assigned exclusively to the Publisher. The Publisher will not refuse any reasonable request by the author for permission to reproduce any of his or her contributions to the journal.

Manuscripts should be prepared according to the following style rules (deviation from these rules causes publication delays):

Form of Manuscript. Submit manuscripts in triplicate and double-spaced on one side of 8.5×11 inch white paper. Number each page. *Page 1* should contain the article title, author and coauthor names, and complete affiliation(s) (name of institution, city, state, and zip code). At the bottom of page 1 place any footnotes to the title (indicated by superscript $*, \dagger, \ddagger$). *Page 2* should contain a proposed running head (abbreviated form of the title) of less than 35 characters. It should also contain the name and mailing address of the author to whom proofs should be sent. *Page 3* should contain an abstract of no more than 100 words. This Abstract will appear at the beginning of the article in the journal.

List of Symbols. Attach to the manuscript a complete typewritten list of symbols, identified typographically, not mathematically. This list will not appear in print but is essential in order to avoid costly author's corrections in proof. [If equations are handwritten in the text then the list of symbols should also be handwritten.] Distinguish between "oh," "zero"; "el," "one"; "kappa," "kay"; upper- and lowercase "kay"; etc. Indicate also when special type is required (German, Greek, vector, scalar, script, etc.); all other letters will be set in *italic*.

Tables. Number tables consecutively with Roman numerals. Extensive tables will be reproduced photographically and so should be typed carefully and in the *exact* format desired. Authors will be charged for any new photoreproductions necessitated by changes in proof. Use superscript lowercase italic letters (*a*, *b*, *c*) for table footnotes, which should be typed immediately below the table. Type tables at least double-spaced, including titles and footnotes. Do *not* underline table titles; reserve underlining for text that is to be italicized.

Equations should by typewritten and with the number placed in parentheses at the right margin. Reference to equations should use the form "Eq. (3)" or simply (3). Superscripts and subscripts should be typed or handwritten clearly above and below the line, respectively. Use the exponent $^{1/2}$ wherever possible.

"Style." In general, authors should be guided by *A Manual for Authors* ($3.00) published in 1962 (and revised in 1980) by the American Mathematical Society, P.O. Box 6248, Providence, R. I. 02904, **but**

References should be styled and punctuated according to the following examples:

1. D. P. Patil and B. Singh, A differential condition on the normal cone, *J. Algebra* **87** (1984), 28–35. [Do not underline titles of articles or books.]
2. L. H. Rowen, "Polynomial Identities in Ring Theory," Academic Press, New York, 1980. [For books, include name of publisher, city, state, and year.]
3. M. Walker, "On Translation Planes and Their Collineation Groups," Ph.D. thesis, Westfield College, University of London, June 1973.

For unpublished lectures or symposia, include title of the paper, name of the sponsoring society in full, and date. For journal names, follow the *Journal of Economic Literature* abbreviations. Cite references in the text by an Arabic number between square brackets, as [1], [1, 2], [1, Theorem 1.5], etc. Type references double-spaced throughout.

Footnotes in text should be avoided if at all possible. If they must be used, identify by superscript numbers and type together on a separate page, double-spaced.

Figures. All illustrations are to be considered as figures. Number each graph or drawing in sequence with Arabic numerals. Supply a descriptive legend for each figure. Type legends double- or triple-spaced consecutively on a separate sheet. **Figures must be submitted in a form suitable for reproduction.** Plan figures to fit the proportion of the printed page. Use a professional lettering set on the original so that the letters and numbers are large enough and "open" enough to take a reduction of 50–60% without filling in with ink. Do not include background grids; however, on paper with blue lines the grid can be eliminated in the process of photoreproduction. Identify each figure in a margin with the name of the journal, author's name, and figure number; avoid marking the backs of figures.

Proofs. Proofs will be sent to the author, with a reprint order form. Authors will be charged for alterations in excess of 10% of the cost of composition.

Reprints. Fifty reprints without covers will be provided free of charge. Additional reprints may be purchased; an order form will be included with proofs.

Personal Computer Disks. Manuscripts may be submitted to *Journal of Economic Theory* on personal computer disks after the manuscript has been accepted and after all revisions have been incorporated onto the disk. Label the disk with the type of computer used, the type of software and the version number, and the disk format. All tabular material will be typeset conventionally. Art must be prepared as camera-ready copy; see the section on Figures earlier in this Information for Authors.

A hard copy printout of the manuscript that exactly matches the disk file must be supplied. Academic Press will not accept disks without accompanying printouts of all files on the disk. File names must clearly indicate the content of each file. The manuscript will be edited according to the style of the journal, and the proofs must be read carefully by the author. Disks that are not translatable or economical to process will not be used. The publisher reserves the right not to use the disk.

For further information on preparing disks for typesetting conversion, please contact the publisher (Editorial Supervisor, Journal Division, Academic Press, Inc., 525 B Street, Suite 1900, San Diego, California 92101-4495; telephone: (619) 699-6415; fax: (619) 699-6800).

Journal of Environmental Economics and Management

Managing Editor
Ronald G. Cummings
Policy Research Center, Georgia State University, Atlanta

The **Journal of Environmental Economics and Management** is devoted to the publication of theoretical and empirical papers concerned with the linkage between economic systems and environmental and natural resources systems. The journal also presents papers of substantial importance in understanding the management and/or social control of the economy in its relationship with the management and use of natural resources and the natural environment. Providing worldwide coverage of the field, the journal includes articles by economists as well as interdisciplinary papers by researchers in other fields of interest to resource and environmental economists.

Official Journal of the Association of Environmental and Resource Economists

Volumes 26–27 (1994), 6 issues
ISSN 0095-0696

In the U.S.A. and Canada: $222.00
All other countries: $272.00

Sample copies and privileged personal rates are available upon request.
For more information, please write or call:

ACADEMIC PRESS, INC.
Journal Promotion Department
525 B Street, Suite 1900
San Diego, CA 92101-4495, U.S.A.
(800) 894-3434

All prices are in U.S. dollars and are subject to change without notice.
Canadian customers: Please add 7% Goods and Services Tax to your order.

S4071D

Historia Mathematica

Editor
David E. Rowe
Universität Mainz, Germany

Managing Editor
Karen Parshall
University of Virginia, Charlottesville

Historia Mathematica is concerned with the history of all aspects of the mathematical sciences in all parts of the world and all historical periods. The journal publishes occasional biographies of mathematicians and historians, studies of organizations and institutions, essays on historiography, and articles on the interactions among all facets of mathematical activity and other aspects of culture and society.

In addition to research articles, **Historia Mathematica** includes the following departments: Notes, News and Notices, Sources, Meetings, Projects, Reviews, Abstracts, and Letters to the Editor.

Published under the Auspices of the International Commission on the History of Mathematics of the Division of the History of Science of the International Union of the History and Philosophy of Science

		In the U.S.A. and Canada	All other countries
Volume 21 (1994), 4 issues	Institutional rate:	$127.00	$156.00
ISSN 0315-0860	Personal rate:	$50.00	$66.00

Sample copies are available upon request. For more information, please write or call:

ACADEMIC PRESS, INC., Journal Promotion Department
525 B Street, Suite 1900, San Diego, CA 92101-4495, U.S.A.
(800) 894-3434

All prices are in U.S. dollars and are subject to change to change without notice.
Canadian customers: Please add 7% Canadian Goods and Services Tax to your order.

S4053B